| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 08/817,689 | 06/13/1997 | GUY NATHAN | 871-31 | 8565 |

23117    7590    09/11/2006

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA  22203

| EXAMINER |
|---|
| KOENIG, ANDREW Y |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2623 | |

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>05 June 2006</u>.

2a)☒ This action is **FINAL.**     2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>11-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>11-15 and 17-20</u> is/are rejected.

7)☒ Claim(s) <u>16</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

## DETAILED ACTION

### *Response to Arguments*

1.    Applicant's arguments filed 05 June 2006 have been fully considered but they are not persuasive.

The applicant argues that the examiner has asserted that the buffers are inherent to multitasking operating systems without citing a reference (or taking Official Notice). The examiner notes that inherent features are necessarily present and notes that the applicant has not provided any argument to the contrary.

The applicant argues on page 8, second paragraph that the use of buffers is resulting from a teaching reference (Ludwig) and that the buffers is not supported by any prior art of record or proper official notice. The examiner disagrees; as buffers are necessarily present in order to process information using different threads and processes.

On page 8, last paragraph, the applicant argues that "buffering in provided by the operating system software to guarantee continuous flow of the audio/video data" is wholly unrelated to multitasking, which is noted that is related to bandwidth constrains across a network, but the buffers are still used in conjunction with the multi-tasking operating system, even though they may be used for a different function, the examiner notes that Ludwig is evidence of the use of buffers within a multitasking operating system.

The applicant argues that the teachings of Martin and Kim are incompatible or at a minimum that their combination is beyond the level of ordinary skill in the art. The

examiner disagrees; Kim is evidence of buffering and techniques used for buffering data. Even though Martin appears to be directed to managing a plurality of jukeboxes, one of ordinary skill in the art would recognize different topologies for the playback device, such as taught by Kim.

The applicant argues that on page 9, second paragraph the Kim does not teach respective status buffer means being put into an active state if one of the two corresponding buffers is empty. The examiner disagrees; Kim teaches when one of the buffers is empty (Audio or Video), to put into an respective buffer status into an active state (col. 3, ll. 22-28), wherein an exemplary detection block is shown in figure 2, and is duplicated for other signals (e.g. one for audio and one for video) (col. 3, ll. 33-39).

Further, the applicant argues that buffering data is decoded by software, however, this is broadly captured as "by the operating system" which is merely controlling using software and not necessarily decoding only by software.

The applicant argues that Fujinami is hardly analogous to a payment-based audiovisual reproduction system. The examiner disagrees; as Martin introduces the structure of the payment based audiovisual reproduction system, and Fujinami teaches details of an audiovisual reproduction system. One of ordinary skill in the art would readily recognize that the teachings of Fujinami would apply to the audiovisual system of Kim.

The applicant has traversed the following Official Noticed facts:

Official Notice is taken that a digital display is well known in the art. The examiner notes that this is moot as the claims have been amended to remove this limitation.

Official Notice is taken that storing software on a storage medium such as a hard disk or CD-ROM is well known in the art.

- U.S. Patent 5,748,468 to Notenboom et al. teaches storing software on RAM or ROM (fig. 1, label 38, col. 4, II. 44-54).

Official Notice is taken that the functions of a priority resolution module and a scheduling module are well known in the art.

- U.S. Patent 5,748,468 to Notenboom et al. teaches priority resolution (col. 14, II. 20-25, and scheduling (col. 8, II. 33-44).

Official Notice is taken that temporary buffers are well known in the art.

- U.S. Patent 5,596,702 to Stucka et al. teaches a working area for buffering and temporary storage (col. 8, II. 9-25).

Official Notice is taken that a manager is well known in the art.

- U.S. Patent 5,117,407 to Vogel et al. teaches an operator of a jukebox, which equates to a manager (col. 5, II. 25-43)

- U.S. Patent 5,341,350 to Frank et al. teaches an operator obtaining information from a jukebox remotely (col. 3, II. 33-41, col. 4, II. 29-49).

Official Notice is taken that storing an operating system on a hard drive is well known in the art.

- U.S. Patent 4,953,157 to Hayden et al. teaches storing an operating

  system on a hard drive (col. 8, ll. 56-62).

Official Notice is taken that hiding system files is well known in the art.

- U.S. Patent 5,715,416 to Baker teaches hiding files (col. 33-34, ll. 8-4).

Official Notice that fixing a price for a title is well known in the art.

- U.S. Patent 4,667,802 to Verduin et al. teaches setting a price for a title

  (col. 4, ll. 4-24).

## *Allowable Subject Matter*

2.      Claim 16 is objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

## *Claim Rejections - 35 USC § 103*

3.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.      Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent 5,355,302 to Martin et al. in view of U.S. Patent 5,521,918 to Kim, U.S.

Patent 5,689,641 to Ludwig et al., and U.S. Patent 5,521,922 to Fujinami et al.

Regarding claim 11, Martin teaches a payment-based jukebox, containing a

microprocessor as 121a in figure 1 (col. 5, ll. 42-44). As shown in figure 1, jukebox #1

has a microprocessor (121a) that is linked to the coin/bill detector (126), which reads on

the claimed payment device, and storage device (93) for storing audio and visual

information (col. 5, ll. 8-15), a display (125), a digital audio reproduction device (126).

Martin teaches a jukebox with a display; however, Martin fails to disclose a digital

display. Official Notice is taken that a digital display is well known in the art. Therefore,

it would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Martin by using a digital display in order to enhance the visual

quality of the images.

Martin is silent on the type of operating system (OS) used in the jukebox. Ludwig

teaches a multitasking operating system (col. 4, ll. 55-58, col. 6, ll. 15-22, col. 18, ll. 44-

52). Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to modify Martin by incorporating a multitasking operating

system as taught by Ludwig in order to manage multiple tasks thereby maximizing the

processing power of the microprocessor.

Martin teaches storing tools and services integrated into the storage means for

operating the jukebox in the read only memory (ROM) of the jukebox (121B; col. 5, ll.

26-37), but is silent on storing software on a storage medium. Official Notice is taken

that storing software on a storage medium such as a hard disk or CD-ROM is well

known in the art. Therefore, it would have been obvious to one of ordinary skill in the

art at the time the invention was made to modify Martin by storing the software in a

storage medium such as a hard disk or CD-ROM as taught in order to consolidate the

storage of the information at a central location thereby enabling updates to the software.

Furthermore, video processing takes substantially more processing power than

audio processing. Martin is silent on a display task having a higher priority than an

audio signal. Fujinami teaches that video decoding has a higher priority over an audio

decoding (col. 9, ll. 57-61, col. 10, ll. 14-21). Therefore, it would have been obvious to

one of ordinary skill in the art to modify Martin by assigning a higher priority to a video

signal and a lower one to an audio signal as taught by Fujinami in order to efficiently

process a video signal (which has more data than an audio signal).

Martin fails to explicitly disclose using buffers. However, buffers are an inherent

characteristic to multi-tasking operating systems in order to process information using

different threads and processes. Consequently, the combination of Martin and Ludwig

teaches the use of buffers, but are silent on at least two temporary buffers for each said

video and audio, said buffers transmitting data to the display means and audio

reproduction means through the decompressors, wherein the buffers allow processing

into a display and video/audio decompressors by an operating system while transferring

data into the other buffer.

Kim teaches plural FIFO buffers for both the video and audio (col. 3, ll. 16-21)

from a digital storage media (fig. 1, label 10, col. 2, ll. 51-62), which equates to at least

two temporary buffers for each said video and audio, the buffers are coupled to the

video and audio decoders (fig. 1, labels 70, 90, respectively) for outputting the signals,

which equates to said buffers transmitting data to the display means and audio

reproduction means through the decompressors. Further, Kim teaches video and audio

decoders (fig. 1, labels 70, 90, respectively) which inherently have buffers in order to

perform decompression of the respective signals. Kim teaches sequentially filling the

buffers based on their respective states such that data is read from one FIFO while the

system is filling another buffer (col. 3, ll. 16-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Martin by using at least two temporary buffers for

each said video and audio, said buffers transmitting data to the display means and

audio reproduction means through the decompressors, wherein the buffers allow

processing into a display and video/audio decompressors by an operating system while

transferring data into the other buffer as taught by Kim in order to efficiently buffer,

process, and display the respective compressed streams thereby reducing artifacts and

buffer overrun and under run errors.

Martin is silent on the temporary buffers associated with status buffers to store

data relating to decompression, wherein the buffers are provided for the temporary

buffers, wherein the status buffers for video and audio and being put into an active state

if one of the two corresponding temporary buffers is empty and if each of the

corresponding buffers contains data being put into an inactive state.

Kim teaches separate status buffers for each of the video FIFO and audio FIFO

(col. 3, ll. 16-28), which equates to temporary buffers associated with status buffers to

store data relating to decompression, wherein the buffers are provided for the temporary

buffers. Kim teaches a logic one designating an empty flag signal for an empty buffer,

which equates to wherein the status buffers for video and audio and being put into an active state if one of the two corresponding temporary buffers is empty, consequently, when the signal is inactive (logic zero) when the buffer contains data (col. 3, ll. 33-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martin by using temporary buffers associated with status buffers to store data relating to decompression, wherein the buffers are provided for the temporary buffers, wherein the status buffers for video and audio and being put into an active state if one of the two corresponding temporary buffers is empty and if each of the corresponding buffers contains data being put into an inactive state.  as taught by Kim in order to efficiently manage the FIFO buffers containing data, thereby enabling the system to efficiently process the audio and video signals.

Martin is silent on a scheduling module for reading status values and alternately feed the video and audio buffers with data, wherein the scheduling module performs a test to determine the state of the buffer if the buffers are inactive. Additionally, Martin is silent on an audio buffer having a size sufficient for storing an amount of data to avoid any lack of data during audio operations.

Kim teaches a flag detection block (fig. 1, label 100), flag register (fig. 1, label 50), and microprocessor (fig. 1, label 36), for reading status values and alternatively feeding the buffers with data, and testing to determine if the buffers are inactive (col. 4-5, ll. 56-6), wherein the audio buffer has a size sufficient for storing an amount of data to avoid any of data during operations (col. 5, ll. 7-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martin by a scheduling module for reading status values and alternately feed the video and audio buffers with data, wherein the scheduling module performs a test to determine the state of the buffer if the buffers are inactive and audio buffer having a size sufficient for storing an amount of data to avoid any lack of data during audio operations as taught by Kim in order to efficiently manage the FIFO buffers containing data, thereby enabling the system to efficiently process the audio and video signals.

However, Martin and Kim are silent on transferring the information to the other by means of the operating system. Ludwig teaches buffering of the video is provided by the operating system, which as described above is a multitasking operating system (col. 32, II. 27-36). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martin and Kim by transferring information to buffers by the operating system as taught by Ludwig in order to guarantee a continuous flow of audio/video data (Ludwig: col. 32, II. 35-36).

Regarding claim 12, Martin teaches a modem (label 19 in figure 1); this is connected to a transmission link (col. 3, II. 26-32).

Regarding claim 13, Martin fails to teach a priority resolution module or a scheduling module. However, Official Notice is taken that the functions of a priority resolution module and a scheduling module are well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martin by incorporating a priority resolution module in the multi-task

environment in order to properly assign the correct priorities to the task thus providing a more robust design. As for the scheduling module, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martin by using a scheduling module in the multi-task environment in order to maximize the available resources for use by other tasks.

Regarding claim 14, Martin fails to teach temporary buffers. Official Notice is taken that temporary buffers are well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martin by using temporary buffers in order to communicate between task levels and improve robustness.

Regarding claim 15, Martin fails to teach a "manager." Official Notice is taken that a manager is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martin by including a manager in order to handle any non-real time operations and maintain the system. Managing takes substantially less processing power than audio and video; therefore, it would have been obvious to assign the management module a lower priority.


5.      Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,355,302 to Martin et al., U.S. Patent 5,521,918 to Kim, U.S. Patent 5,689,641 to Ludwig et al., and U.S. Patent 5,521,922 to Fujinami et al. in view of U.S. Patent 5,481,509 to Knowles.

Regarding claim 17, Martin teaches a display (label 125, figure 1); however,

Martin fails to teach a touch screen. Knowles teaches a touch screen and a video

display (label 18, figure 2). Therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify Martin by adding a touch

screen and a video display as taught by Knowles in order to present the user with a

menu including directions for operating the jukebox system (col. 4, ll. 7-11). Martin fails

to show a control panel. Knowles teaches a control panel with at least control panels,

see figure 5. Martin fails to show the first title selection panel. In figure 5, Knowles

teaches the "touch the title of your choice" panel which reads on the first title selection

panel to help customers find and select a desired title. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

Martin by incorporating instructions in order to further facilitate the user in selecting

music. Martin fails to explicitly show a second management control panel. Clearly the

function of the second management control panel is taught by Martin; the jukebox as

disclosed would have a volume control. Martin teaches the use of a database in the

central management system (label 11, figure 1), but fails to teach a database at the user

location. Knowles teaches the use of a database in a jukebox (col. 7, ll. 16-22);

scanning is an inherent characteristic of databases. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

Martin by using a database as taught by Knowles in order to scan for songs to simplify

the searching process, thereby aiding the user in finding music. Martin fails to teach a

fourth statistics panel, for statistical estimation. However, Knowles teaches storing

statistical information regarding the played tracks (col. 7, ll. 16-22). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to modify Martin by gathering statistical information of the songs as taught by Knowles

in order to pay royalties and obtain additional operator information.


6.      Claims 18-19 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 5,355,302 to Martin et al., U.S. Patent 5,521,918 to Kim, U.S. Patent 5,689,641

to Ludwig et al., and U.S. Patent 5,521,922 to Fujinami et al. in view of U.S. Patent

5,282,028 to Johnson et al.

Regarding claim 18, Martin fails to teach a remote control. Johnson teaches a

remote control with a volume control (label 200, figure 6). Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to

modify Martin by using a remote control with volume control in order to adjust the

volume of the jukebox thereby giving more audio control to the user.

Regarding claim 19, Martin fails to teach storing "system operating parameters in

a file," which is unable to be read by the user. Official Notice is taken that hiding system

files is well known in the art. Therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify Martin by hiding system files

in order to create a robust and secure system from abuse.


7.      Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 5,355,302 to Martin et al., U.S. Patent 5,521,918 to Kim, U.S. Patent 5,689,641

to Ludwig et al., U.S. Patent 5,521,922 to Fujinami et al., and U.S. Patent 5,282,028 to

Johnson et al in view of U.S, Patent 5,481,509 to Knowles.

Regarding claim 20, Martin fails to teach fixing a price for a title. Official Notice

that fixing a price for a title is well known in the art. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

Martin by charging a user for playing a song in order to maximize revenue. Martin fails

to teach an inactivity delay before starting a visual promotion and an auxiliary source.

Knowles teaches playing a commercial during a delay (label 182, figure 4C), which

reads on a visual promotion and an auxiliary source (col. 7, ll. 34-57). Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Martin by playing a commercial as taught by Knowles in order to keep

the jukebox active.

## *Conclusion*

8.      **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y. Koenig whose telephone number is (571) 272-7296. The examiner can normally be reached on M-Fr (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571)272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ayk